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**REMARKS**

Claims 1-3, 6, 8-12, 14, 17-22, 24-31, and 33-36 are pending in the Application. Claim 1 has been amended. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Amendment

Claim 1 has been amended to specifically recite the minimum thickness of the claims sheet. Support for this amendment may be found at least at line 1 of page 105 and line 21 of page 108. Applicants believe no new matter has been introduced by this amendment.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2, 6, 8, 12, 14, 17-22, 25-27, and 33-36 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent 5,439,512 to Kamijima. Applicants respectfully traverse this rejection.

As summarized by the Examiner, Kamijima teaches a composition of an anti-fouling paint that uses acrylic rubber with DCHBSA. The Examiner has asserted that the paint reads on the instantly claimed sheet because once the paint is applied, particularly on a broad surface, it becomes a sheet. Applicants disagree.

The paint of Kamijima results in a coating having a thickness of 50 micrometers (Col. 20, line 34) to 100 micrometers (Col. 23, line 16). In contrast, the instantly claimed sheet has a thickness of 1 millimeter or greater. As there is a ten fold difference between the paint of Kamijima and the instantly claimed sheet, Applicants assert that Kamijima cannot reasonably anticipate the instant claims.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 6, 8-12, 14, 17, 18, 19, 21, 22, 25, 26, 27, 29-31 and 33-36 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Cooper in view of U.S. Patent 5,858,521 to Okuda et al (Okuda). Claim 24 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Cooper in view of Okuda and U.S. Patent No. 4,602,054 to Kang et al (Kang) or alternatively over Okuda in view of Kang. Claim 28 stands rejected under 35 U.S.C. § 103(a),

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as allegedly unpatentable over Cooper in view of Okuda and U.S Patent No. 4,218,349 to Minatono (Minatono) and Okuda in view of Minatono. Claims 1-3, 6, 8-12, 14, 17, 18, 19, 21, 22, 25, 26, 27, 29-31, and 33-35 stand rejected as allegedly unpatentable over Okuda. Applicants respectfully traverse these rejections.

Cooper discloses a sulfur curable conjugate diene rubber compound formulation containing a silica reinforcing filler and a coupling agent and a benzothiazyl sulfenamide accelerator. (Abstract) As stated by the Examiner Cooper fails to teach the claimed amount of benzothiazyl sulfenamide compounds.

The Examiner has cited Okuda for its teaching with regard to how the degree of vulcanization affects the physical properties of the rubber and how vulcanization is controlled "by the vulcanizing agents and accelerators" (Office Action page 4-5). The Examiner goes on to assert that it would have been obvious to a person of ordinary skill in the art to determine the amount of vulcanizing agents and accelerators to achieve the desired degree of vulcanization. Applicants earnestly disagree.

Okuda, at Col. 3, lines 21-39, makes a distinction between **vulcanization agents** such as sulfur and peroxides and **vulcanization accelerators** such as N-cyclohexyl-2-benzothiazolyl sulfenamide. Okuda discusses, in Column 5, lines 10-35, the desired rubber viscosity of the viscoelastic layer composition before vulcanization and the modulus of dynamic shearing elasticity after vulcanization. Okuda further teaches that these physical properties can be adjusted by "the types and the added amounts of the above-mentioned vulcanizing agents, softening agents and fillers." (emphasis added, Col. 5, lines 31-35) Okuda does not teach or suggest that the physical properties can be modified by the amount of the vulcanization accelerator. As benzothiazyl sulfenamide compounds such as DCHBSA are vulcanization accelerators, not vulcanization agents, Okuda does not teach or suggest modification of the amount of vulcanization accelerators to attain a particular physical properties.

Accordingly, Applicants assert that Okuda does not teach or suggest the instantly claimed amounts of benzothiazyl sulfenamide compounds.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all elements of the invention

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be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Okuda does not rectify the deficiency Cooper because Okuda teaches that the amounts of vulcanizing agents, not vulcanizing accelerators, can alter physical properties. As a result, Okuda does not teach or suggest modifying the amounts of vulcanization accelerators as taught by Cooper. Thus, Applicants believe that a prima facie case of obviousness has not been established because not all elements of the claims have been disclosed.

With regard to the rejections that additionally employ Kang or Minatono Applicants respectfully assert, as explained in the previous amendment, that Kang and Minatono do not teach the claimed amount of benzothiazyl sulfenamide compounds and thus do not rectify the deficiency of Cooper and Okuda.

With regard to the rejection of Claims 1-3, 6, 8-12, 14, 17, 18, 19, 21, 22, 25, 26, 27, 29-31, and 33-35 in view of Okuda alone, Applicants believe that Okuda alone does not provide sufficient basis for a finding of obviousness. Okuda provides no broad teaching with regard to the amount of vulcanization accelerator that may be employed. Okuda's sole teaching with regard to the amount of vulcanization accelerator can be found in the examples where zinc flowers are used in an amount of 5 parts by weight (Tables in Cols. 14 and 15). Since Okuda's sole teaching about the amounts of vulcanization accelerators is half of the lower limit that is claimed Applicants respectfully assert that the claimed method is not obvious in view of Okuda.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,  
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